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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,401	08/19/2005	Armin Reimann	5003073.062US1	9125
29737	7590	06/17/2008		
SMITH MOORE LLP P.O. BOX 21927 GREENSBORO, NC 27420			EXAMINER BERNSHTEYN, MICHAEL	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			06/17/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/532,401	Applicant(s) REIMANN ET AL.	
	Examiner MICHAEL M. BERNSHTEYN	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 14-16 and 18-20 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-13, 21 and 22 is/are allowed.
- 6) ☒ Claim(s) 1 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-22 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/29/05, 03/26/08</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's election without traverse of Group I, claims 1 -13, 17, 21 and 22 in the reply filed on April 2, 2008 is acknowledged.
2. Claims 14-16 and 18-20 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claims. Election was made **without** traverse in the reply filed on April 2, 2008.
3. Claims 1 -13, 17, 21 and 22 are active.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites, "...wherein the polymer particles in the first mixing event are mixed with a speed such that the kinetic energy of the individual polymer particles is on average larger than the adhesion energy between the individual polymer particles". The disclosure does not disclose how one skilled in the art to which it pertain can determine which exactly speed corresponds to the claimed conditions. It is noted that even though

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the statute does not use the term "undue experimentation," it has been interpreted to require that the claimed invention be enabled so that any person skilled in the art can make and use the invention without undue experimentation. *In re Wands*, 858 F.2d at 737, 8 USPQ2d at 1404 (Fed. Cir. 1988). See also *United States v. Telectronics, Inc.*, 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988) ("The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation."). See MPEP 2164.01 [R-5].

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. The term "safe blending" in claim 9 is a relative term which renders the claim indefinite. The term "safe blending" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is not clear how to determine the scope of "safe blending" without undue experimentation.

6. Claim 17 recites the limitation "an absorbent polymer according to claim 14" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Gartner et al. (U. S. Patent 6,323,252).

With regard to the limitations of claim 1, Gartner exemplifies a process in which a superabsorbent polymer (ethoxylated trimethylolpropane triacrylate) in water: (i) is **stirred with a high-speed rotor** in a mixer for 2 minutes in a first mixing step, and (ii) is **further stirred in a low-speed mixer** for 20 minutes in a second mixing step (col. 10, line 57 through col. 11, line 20, Examples 7 through 9 of Experimental Procedure I).

Aluminium trichloride was added to the polymer prior to the above mixing process. The superabsorbent polymer obtained is used, for example, in diapers. Post-crosslinking of this polymer is described in examples 27 to 30 (col. 15, line 30 through col. 16, line 25).

Therefore, the process described by Gartner and carried out in accordance with Experimental Procedure 1 is substantially identical to the instantly claimed process as per claim 1.

Furthermore, any mixing operation with a mixer, including that described in the continuous mixing processes of Experimental Procedures 2 and 4 of Gartner, involves the mixer being switched off. This necessarily means that the mixer cuts its mixing speed from a maximum mixing speed, corresponding to the first mixing step of the present application, to zero, corresponding to the second mixing step of the present

application. Therefore, at least the subject matter of independent claim 1 lacks novelty over the processes described in Experimental Procedures 2 and 4.

With regard to the limitations of claim 17, Gartner discloses that in a preferred embodiment for making polymers, an aqueous solution of the α,β -ethylenically unsaturated monomer in the partially neutralized form, the cross-linking agent, the initiator and a grafting polymer **substrate** is prepared (col. 6, lines 63-67). Another embodiment comprises contacting the saline **additive** solution containing surface treatment additives before the heat-treatment. In order to achieve a more homogeneous distribution of cross-linkers or other surface treatment **additives**, the presence of additives like salt in the coating solution supports the more homogeneous distribution of the surface treatment additives on the surface of the superabsorbent polymer particles (col. 8, lines 22-29).

8. Claims 1 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujiura et al. (U. S. Patent 5,002,986).

With regard to the limitations of claim 1, Fujiura discloses a process wherein a superabsorbent polymer in water and aluminium sulphate is stirred at 12000 rpm, corresponding to the first stirring step claimed, and the stirrer is then turned off. When the stirrer is turned off, it will cut its speed from 12000 rpm to 0 rpm and will thus pass through a lower-speed stirring phase corresponding to the second stirring step claimed (col. 8, line 41 through col. 9, line 15, example 1).

Therefore, Fujiura clearly describes both stirring steps and thus prejudices the novelty at least of process claim 1.

With regard to the limitations of claim 17, Fujiura discloses that the absorbent article can comprise an intimate admixture of hydrophillic material and the fluid absorbent polymer compositions with the absorbent polymer being distributed essentially uniformly throughout the hydrophillic material. Alternately, the fluid absorbent polymer compositions can be dispersed into at least one or more layers between the hydrophillic material. Another alternative can be to form a laminate by over-wrapping the fluid absorbent polymer compositions with **sheets** of hydrophillic material such as **tissue paper**, if desired (col. 15, lines 15-26). **Additives** which find use in improving the absorbency rate of the composition of the invention are fumed silica, aluminum hydroxide, titanium oxide, swellable clay, etc. 9col. 8, lines 32-35).

Allowable Subject Matter

9. Claims 2-13, 21 and 22 would be allowable if rewritten in independent form and to include all of the limitations of the base claim and any intervening claims.

With regard to the limitations of claims 2-13, 21 and 22 Gartner et al. and Fujiura et al. do not disclose or fairly suggest all the claimed specific limitations, such as the process, wherein in the first mixing event the polymer particles are back-mixed in such a way that a flow of the new polymer particles entering in the mixer is overlaid by a flow of polymer particles already present in the mixer and opposed to this flow; wherein the ratio of the opposed flow to the flow of newly entering polymer particles averages about 5 to about 50 % by wt., etc. as per instant claims 2-13, 21 and 22.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL M. BERNSHTEYN whose telephone number is (571)272-2411. The examiner can normally be reached on M-Th 8-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael M. Bernshteyn/
Examiner, Art Unit 1796

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